

# Indiana Department of Environmental Management

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon Governor

Lori F. Kaplan Commissioner

100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.IN.gov/idem

# MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

McDowell Enterprises, Inc. 2010 Superior Street Elkhart, Indiana 46515

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 039-11719-00413

Issued by:Original signed by Paul Dubenetzky
Paul Dubenetzky, Branch Chief
Office of Air Quality

Issuance Date: January 6, 2003
Expiration Date: January 3, 2006

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D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343(c)] [326 IAC 20-8-1]

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- D.1.9 Record Keeping Requirements [40 CFR 63.346] [326 IAC 20-8-1]
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# Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

- D.2.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]
- D.2.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N]
- D.2.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)][326 IAC 20-8-1]
- D.2.4 Work Practice Standards [40 CFR 63.342(f)][326 IAC 20-8-1]
- D.2.5 Preventive Maintenance Plan [326 IAC 1-6-3]
- D.2.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)][326 IAC 20-8-1]

# Compliance Determination Requirements [326 IAC 2-1.1-11]

D.2.7 Performance Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.343(b)(2)] [40 CFR 63.7] [40 CFR 63.344] [326 IAC 20-8-1]

#### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343(c)] [326 IAC 20-8-1]

#### Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.2.9 Record Keeping Requirements [40 CFR 63.346] [326 IAC 20-8-1]
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#### Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.3.6 Record Keeping Requirements
- D.3.7 Reporting Requirements [326 IAC 20-6-1]

#### **D.4 EMISSIONS OPERATION CONDITIONS:** Heaters and Polishing

There are no conditions specifically applicable to these facilities.

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**Chromium Electroplating and Anodizing NESHAP Ongoing Compliance Status Report Malfunction Report Annual Notification** 

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#### **SECTION A**

#### SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 and A.2 are descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

# A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary chromium electroplating source.

Authorized Individual: President

Source Address: 2010 Superior Street, Elkhart, Indiana 46515 Mailing Address: 2010 Superior Street, Elkhart, Indiana 46515

General Source Phone: (574) 293-1042

SIC Code: 3471 County Location: Elkhart

Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit

Minor Source, under PSD Rules;

Minor Source, Section 112 of the Clean Air Act

# A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) decorative chrome plating tank, identified as Tank 15N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (b) One (1) hard chrome plating tank, identified as Tank 27N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 750 amps and a maximum cumulative rectifier capacity of 4,410,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (c) One (1) hard chrome plating tank, identified as Tank 3WA, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (d) One (1) hard chrome plating tank, identified as Tank 3WB, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 3,000 amps and a maximum cumulative rectifier capacity of 17,640,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (e) One (1) hard chrome plating tank, identified as Tank 2WB, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.

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(f) One (1) hard chrome plating tank, identified as Tank 1NW, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 6,000 amps and a maximum cumulative rectifier capacity of 35,280,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.

- (g) One (1) hard chrome plating tank, identified as Tank 1NE, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (h) One (1) hard chrome plating tank, identified as Tank 2NE, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 8,000 amps and a maximum cumulative rectifier capacity of 47,040,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (i) One (1) hard chrome plating tank, identified as Tank 2N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 4,000 amps and a maximum cumulative rectifier capacity of 23,520,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (j) One (1) hard chrome plating tank, identified as Tank 6E, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (k) One (1) open top, batch vapor degreaser, constructed after 1980, capacity: 45.9 pounds of trichloroethylene per day.
- (I) Three (3) natural gas fired heaters, identified as A16320GCB, A03818GCB and A03833GCB, capacity: 0.075 million British thermal units per hour, each.
- (m) Eleven (11) polishing and buffing units, equipped with a dust collector exhausting inside the building.

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#### SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

# B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

## B.3 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

# B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

# B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality Indiana Department of Environmental Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date

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it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

### B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

#### B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

# B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

# B.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to 326 IAC 2-6.1-6(d)(3):

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by a notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

# B.11 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

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#### **SECTION C**

#### **SOURCE OPERATION CONDITIONS**

#### **Entire Source**

- C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]
  - (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
  - (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

## C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

# C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

# C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

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# C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management Asbestos Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

- (e) Procedures for Asbestos Emission Control
  The Permittee shall comply with the applicable emission control procedures in 326 IAC 1410-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector
  The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior
  to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly
  inspect the affected portion of the facility for the presence of asbestos. The requirement that
  the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally
  enforceable.

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# **Testing Requirements**

# C.6 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

(a) Compliance testing on new emissions units shall be conducted within sixty (60) days after achieving maximum production rate, but no later than one hundred eighty (180) days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify the IDEM, OAQ, of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, no later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation no later than five (5) days prior to the end of the initial forty-five (45) day period.

# Compliance Requirements [326 IAC 2-1.1-11]

#### C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

#### **Compliance Monitoring Requirements**

# C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

# C.9 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

# C.10 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11]

(a) Whenever a condition in this permit requires the measurement of total static pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading unless otherwise

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specified in this permit.

(b) Whenever a condition in this permit requires the measurement of a temperature or hoist speed, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading unless otherwise specified in this permit.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

#### C.11 Compliance Response Plan - Preparation and Implementation

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

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- (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

# C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

# **Record Keeping and Reporting Requirements**

#### C.13 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a) (1) through (6).

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(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

# C.14 General Record Keeping Requirements [326 IAC 2-6.1-2-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

## C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

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#### SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

# Emissions Unit Description: Chromium Electroplating (south chromium stack)

- (a) One (1) decorative chrome plating tank, identified as Tank 15N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (b) One (1) hard chrome plating tank, identified as Tank 27N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 750 amps and a maximum cumulative rectifier capacity of 4,410,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (c) One (1) hard chrome plating tank, identified as Tank 3WA, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (d) One (1) hard chrome plating tank, identified as Tank 3WB, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 3,000 amps and a maximum cumulative rectifier capacity of 17,640,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (e) One (1) hard chrome plating tank, identified as Tank 2WB, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

# D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

D.1.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N] The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to Tanks 15N, 27N, 3WA, 3WB and 2WB. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

# D.1.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)] [326 IAC 20-8-1]

(a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction.

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(b) The hard chromium electroplating tanks, identified as Tanks 27N, 3WA, 3WB and 2WB, above, and the decorative chromium electroplating tank, identified as Tank 15N, above, are all controlled by a single composite mesh pad system. Pursuant to 40 CFR 63.342(b)(2)(iii), the emission limitation calculated according to 40 CFR 63.344(e)(4) is applicable if affected sources are performing different types of operations. Therefore, during operation of any five (5) affected tanks, Tanks 15N, 27N, 3WA, 3WB and/or 2WB, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by not allowing the total chromium in the exhaust gas stream discharged to the atmosphere to exceed 257.4 milligrams of total chromium per hour (mg/hr). This limit was calculated based upon the following equations from 40 CFR 63.344(e)(4):

Equation 3:  $VR_{tot} \times IDA_{i,a}/EIA_{total} = VR_{inlet,a}$ 

Equation 4: VR<sub>hc</sub> × Emission Limit<sub>hc</sub> × 60 minutes/hour = AMR<sub>hc</sub>

Equation 6: VR<sub>dc</sub> × Emission Limit<sub>dc</sub> × 60 minutes/hour = AMR<sub>dc</sub>

Equation 8:  $AMR_{hc} + AMR_{dc} = AMR_{svs}$ 

Where  $VR_{tot}$  is the average total ventilation rate in dry standard cubic meters per minute (dscm/min) for the three test runs as determined at the outlet by means of the Method 306 testing;  $IDA_{i,a}$  is the total inlet area for all ducts associated each type of affected source;  $IA_{total}$  is the sum of all inlet duct areas from both affected and nonaffected sources;  $VR_{inlet,a}$  is the total ventilation rate from all inlet ducts associated with each type of affected source;  $VR_{hc}$  is the total ventilation rate for hard chrome electroplating tanks;  $VR_{dc}$  is the total ventilation rate for decorative chrome electroplating tanks;  $AMR_{hc}$  is the allowable mass emission rate in mg/hr for all of the hard chrome electroplating;  $AMR_{dc}$  is the allowable mass emission rate in mg/hr for all of the decorative chrome electroplating;  $AMR_{sys}$  is the allowable mass emission rate in milligrams per hour (mg/hr); and the Emission Limit is the emission limits from 40 CFR 63.342, which equal 0.015 mg/dscm for large, existing hard chrome electroplating and 0.01 mg/dscm for decorative chrome electroplating.

# D.1.4 Work Practice Standards [40 CFR 63.342(f)] [326 IAC 20-8-1]

The following work practice standards apply to Tanks 15N, 27N, 3WA, 3WB and 2WB:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain Tanks 15N, 27N, 3WA, 3WB and 2WB, including the composite mesh pad system and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.1.6.
- (b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.1.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAQ, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.

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(e) Based on the results of a determination made under paragraph (d) of this condition, IDEM, OAQ may require that the Permittee make changes to the OMP required by Condition D.1.6. Revisions may be required if IDEM, OAQ finds that the plan:

- (1) Does not address a malfunction or period of excess emissions that has occurred;
- (2) Fails to provide for the operation of Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
- (3) Does not provide adequate procedures for correcting malfunctioning process equipment, composite mesh pad system, monitoring equipment or other causes of excess emissions as quickly as practicable.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

#### D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for the Tanks 15N, 27N, 3WA, 3WB and 2WB and the composite mesh pad system, and shall include the following:

- (a) For the composite mesh-pad system (CMP):
  - (1) Quarterly visual inspections of the device to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.
  - (2) Quarterly visual inspection of the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.
  - (3) Quarterly visual inspection of the duct work from the tank to the control device to ensure there are no leaks.
  - (4) Perform wash down of the composite mesh-pads in accordance with manufacturers recommendations.
- (b) A standardized checklist to document the operation and maintenance criteria for Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system and the monitoring equipment.
- (c) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.

#### D.1.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)] [326 IAC 20-8-1]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of Tanks 15N, 27N, 3WA, 3WB and 2WB. The OMP shall specify the operation and maintenance criteria for the tanks, the composite mesh pad system and monitoring equipment and shall include the following elements:
  - (1) The PMP requirements specified in Condition D.1.5.

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(2) A systematic procedure for identifying malfunctions and periods of excess emissions of Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system and

malfunctions and periods of excess emissions.

(b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.1.5, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.1.6(a).

monitoring equipment; and for implementing corrective actions to address such

- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAQ.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAQ for the life of Tanks 15N, 27N, 3WA, 3WB and 2WB or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAQ for a period of five (5) years after each revision to the plan.

#### Compliance Determination Requirements [326 IAC 2-1.1-11]

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- D.1.7 Performance Testing [326 IAC 2-1.1-11] [40 CFR 63.343(b)(2)] [40 CFR 63.7] [40 CFR 63.344] [326 IAC 20-8-1]
  - (a) A performance test demonstrating initial compliance for Tanks 15N, 27N, 3WA, 3WB and 2WB was performed on July 23, 1996.

During the initial performance test, it was determined that the average pressure drop across the composite mesh pad system was 5.3 inches of water and the chromium emission rate is 71.86 mg/hr.

- (b) The Permittee is not required to further test Tanks 15N, 27N, 3WA, 3WB and 2WB by this permit. However, the IDEM may require testing when necessary to determine if Tanks 15N, 27N, 3WA, 3WB and 2WB are in compliance. If testing is required by the IDEM, compliance with the limit specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C Performance Testing.
- (c) Any change, modification, or reconstruction of Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C Performance Testing.

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# Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.1.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343(c)] [326 IAC 20-8-1]
  - (a) Pursuant to 40 CFR 63.343(c)(1)(ii), when using a composite mesh-pad system to comply with the limit specified in Condition D.1.3, the Permittee shall monitor and record the pressure drop across the composite mesh-pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ±1 inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.
  - (b) Tank operation or operating time is defined as that time when a part is in the tank and the rectifier is turned on. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts may be considered operating time.

# Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

# D.1.9 Record Keeping Requirements [40 CFR 63.346] [326 IAC 20-8-1]

The Permittee shall maintain records to document compliance with Conditions D.1.3, D.1.4 and D.1.6 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the composite mesh pad system and monitoring equipment to document that the inspection and maintenance required by Conditions D.1.7 and D.1.8 have taken place. The record can take the form of a checklist and should identify the following:
  - (a) The device inspected;
  - (b) The date of inspection;
  - (c) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
  - (d) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of Tanks 15N, 27N, 3WA, 3WB and 2WB, the composite mesh pad system and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.

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- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.1.8(b), of each tank, during the reporting period.
- (k) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period.
- (I) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.1.10.
- D.1.10 Reporting Requirements [326 IAC 3-6-4(b)] [40 CFR 63.344(a), 63.345 and 63.347] [326 IAC 20-8-1]

  The notifications and reports required in this section shall be submitted to IDEM, OAQ using the address specified in Section C General Reporting Requirements.
  - (a) Notifications:
    - (1) Initial Notifications
      The Permittee shall notify IDEM, OAQ in writing that the source is subject to 40 CFR
      Part 63, Subpart N. The notification shall be submitted no later than one hundred
      eighty (180) days after the compliance date and shall contain the information listed
      in 40 CFR 63.347(c)(1).
    - (2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.
      - (A) The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
      - (B) The NCS for Tanks 15N, 27N, 3WA, 3WB and 2WB shall be submitted to IDEM, OAQ immediately.
    - (3) Notification of Construction or Reconstruction
      Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank
      subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR
      63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR)
      to IDEM, OAQ. In addition, the Permittee may not change, modify, or reconstruct
      Tanks 15N, 27N, 3WA, 3WB and 2WB without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.
      - (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).

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- (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device [i.e., the addition of duct work to the CMP system]
- (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct Tanks 15N, 27N, 3WA, 3WB and 2WB serves as this notification.
- (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.

#### (b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of Tanks 15N, 27N, 3WA, 3WB and 2WB using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because Tanks 15N, 27N, 3WA, 3WB and 2WB are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAQ upon request.

- (1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).
  - (A) The first report shall cover the period from the last report to the date the permit is issued. The second report shall cover the period from the issuance date of this permit to December 31 of the year in which the permit is issued.
  - (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If both of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAQ:
  - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.1.8(b) for the reporting period; and
  - (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total

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operating time as defined in Condition D.1.8(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

(3) IDEM, OAQ may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

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#### SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

# Emissions Unit Description: Chromium Electroplating (north chromium stack)

- (f) One (1) hard chrome plating tank, identified as Tank 1NW, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 6,000 amps and a maximum cumulative rectifier capacity of 35,280,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (g) One (1) hard chrome plating tank, identified as Tank 1NE, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (h) One (1) hard chrome plating tank, identified as Tank 2NE, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 8,000 amps and a maximum cumulative rectifier capacity of 47,040,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (i) One (1) hard chrome plating tank, identified as Tank 2N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 4,000 amps and a maximum cumulative rectifier capacity of 23,520,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (j) One (1) hard chrome plating tank, identified as Tank 6E, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

# D.2.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

D.2.2 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N]

The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to Tanks 1NW, 1NE, 2NE, 2N and 6E. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.

# D.2.3 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)] [326 IAC 20-8-1]

(a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction.

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(b) The hard chromium electroplating tanks, identified as Tanks 1NW, 1NE, 2NE, 2N and 6E, above, are considered a large, existing hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 mg/dscm [6.6x10-6 gr/dscf].

# D.2.4 Work Practice Standards [40 CFR 63.342(f)] [326 IAC 20-8-1]

The following work practice standards apply to Tanks 1NW, 1NE, 2NE, 2N and 6E:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain Tanks 1NW, 1NE, 2NE, 2N and 6E, including the composite mesh pad system and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.2.6.
- (b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.2.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAQ, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.
- (e) Based on the results of a determination made under paragraph (d) of this condition, IDEM, OAQ may require that the Permittee make changes to the OMP required by Condition D.2.6. Revisions may be required if IDEM, OAQ finds that the plan:
  - (1) Does not address a malfunction or period of excess emissions that has occurred;
  - (2) Fails to provide for the operation of Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
  - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, composite mesh pad system, monitoring equipment or other causes of excess emissions as quickly as practicable.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

#### D.2.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan (PMP), in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for Tanks 1NW, 1NE, 2NE, 2N and 6E and the composite mesh pad system, and shall include the following:

- (a) For the composite mesh-pad system (CMP):
  - (1) Quarterly visual inspections of the device to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.

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- (2) Quarterly visual inspection of the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.
- (3) Quarterly visual inspection of the duct work from the tank to the control device to ensure there are no leaks.
- (4) Perform wash down of the composite mesh-pads in accordance with manufacturers recommendations.
- (b) A standardized checklist to document the operation and maintenance criteria for Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system and the monitoring equipment.
- (c) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.

# D.2.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)] [326 IAC 20-8-1]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of Tanks 1NW, 1NE, 2NE, 2N and 6E. The OMP shall specify the operation and maintenance criteria for the tanks, the composite mesh pad system and monitoring equipment and shall include the following elements:
  - (1) The PMP requirements specified in Condition D.2.5.
  - (2) A systematic procedure for identifying malfunctions and periods of excess emissions of Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in Condition D.2.5, as the OMP, provided the alternative plans meet the above listed criteria in Condition D.2.6(a).
- (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
- (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAQ.
- (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAQ for the life of Tanks 1NW, 1NE, 2NE, 2N and 6E or until the tank is no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAQ for a period of five (5) years after each

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revision to the plan.

## Compliance Determination Requirements [326 IAC 2-1.1-11]

- D.2.7 Performance Testing [326 IAC 2-1.1-11] [40 CFR 63.343(b)(2)] [40 CFR 63.7] [40 CFR 63.344] [326 IAC 20-8-1]
  - (a) A performance test demonstrating initial compliance for Tanks 1NW, 1NE, 2NE, 2N and 6E was performed on July 15, 1997.

During the initial performance test, it was determined that the average pressure drop across the composite mesh pad system was 5.2 inches of water and the average outlet chromium concentration is 0.00110 mg/dscm.

- (b) The Permittee is not required to further test Tanks 1NW, 1NE, 2NE, 2N and 6E by this permit. However, the IDEM may require testing when necessary to determine if the Tanks 1NW, 1NE, 2NE, 2N and 6E are in compliance. If testing is required by the IDEM, compliance with the limit specified in Condition D.2.3 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C Performance Testing.
- (c) Any change, modification, or reconstruction of Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C Performance Testing.

# Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.2.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-6.1-5(a)(2)] [40 CFR 63.343(c)] [326 IAC 20-8-1]
  - (a) Pursuant to 40 CFR 63.343(c)(1)(ii), when using a composite mesh-pad system to comply with the limit specified in Condition D.2.3, the Permittee shall monitor and record the pressure drop across the composite mesh-pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ±1 inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.
  - (b) Tank operation or operating time is defined as that time when a part is in the tank and the rectifier is turned on. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts may be considered operating time.

# Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

#### D.2.9 Record Keeping Requirements [40 CFR 63.346] [326 IAC 20-8-1]

The Permittee shall maintain records to document compliance with Conditions D.2.3, D.2.4 and D.2.6 using the forms provided with this permit. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the composite mesh pad system and monitoring equipment to document that the inspection and maintenance required by Conditions D.2.7 and D.2.8 have taken place. The record can take the form of a checklist and should identify the following:
  - (a) The device inspected;

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(b) The date of inspection;

- (c) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
- (d) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.2.8(b), of each tank, during the reporting period.
- (k) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period.
- (I) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Condition D.2.10.
- D.2.10 Reporting Requirements [326 IAC 3-6-4(b)] [40 CFR 63.344(a), 63.345 and 63.347] [326 IAC 20-8-1]

  The notifications and reports required in this section shall be submitted to IDEM, OAQ using the address specified in Section C General Reporting Requirements.
  - (a) Notifications:
    - (1) Initial Notifications
      The Permittee shall notify IDEM, OAQ in writing that the source is subject to 40 CFR
      Part 63, Subpart N. The notification shall be submitted no later than one hundred
      eighty (180) days after the compliance date and shall contain the information listed
      in 40 CFR 63.347(c)(1).

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(2) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.

- (A) The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
- (B) The NCS for Tanks 1NW, 1NE, 2NE, 2N and 6E shall be submitted to IDEM, OAQ immediately.
- (3) Notification of Construction or Reconstruction
  Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank
  subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR
  63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR)
  to IDEM, OAQ. In addition, the Permittee may not change, modify, or reconstruct
  Tanks 1NW, 1NE, 2NE, 2N and 6E without submitting a Notification of Construction
  or Reconstruction (NCR) to IDEM, OAQ.
  - (A) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
  - (B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device [i.e., the addition of duct work to the CMP system]
  - (C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct Tanks 1NW, 1NE, 2NE, 2N and 6E serves as this notification.
  - (D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.
- (b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of Tanks 1NW, 1NE, 2NE, 2N and 6E using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because Tanks 1NW, 1NE, 2NE, 2N and 6E are located at site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAQ upon request.

(1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).

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- (A) The first report shall cover the period from the last report to the date the permit is issued. The second report shall cover the period from the issuance date of this permit to December 31 of the year in which the permit is issued.
- (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If both of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAQ:
  - (A) The total duration of excess emissions (as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)) is one percent (1%) or greater of the total operating time as defined in Condition D.2.8(b) for the reporting period; and
  - (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.2.8(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

(3) IDEM, OAQ may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

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# SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

# **Emissions Unit Description:** Degreaser

(k) One (1) open top, batch vapor degreaser, constructed after 1980, capacity: 45.9 pounds of trichloroethylene per day.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

# Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

- D.3.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

  The provisions of 40 CFR Part 63, Subpart A General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart T.
- D.3.2 Halogenated Solvent Cleaning Machine NESHAP [40 CFR Part 63.463] [326 IAC 20-6-1]
  This facility is subject to 40 CFR Part 63, Subpart T, (Halogenated Solvent Cleaning Machine NESHAP), which is incorporated by reference as 326 IAC 20-6-1.
  - (a) Pursuant to 40 CFR 63.463(a) and (b), the Permittee shall conform to the following design requirements:
    - (1) The cleaning machine shall be designed or operated such that it has an idling and downtime mode cover, as described in 40 CFR63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects.
    - (2) The cleaning machine shall be employed with a control combination of working-mode cover and freeboard refrigeration device.
    - (3) Cleaning machine shall have a freeboard ratio of 0.75 or greater.
    - (4) Cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minutes (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
    - (5) Cleaning machine shall be equipped with a device that shuts off sump heat if the sump liquid solvent level drops to the sump heater coils.
    - (6) Cleaning machine shall have a primary condenser.
    - (7) Cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
  - (b) Pursuant to 40 CFR 63.463(d), the following work and operational practice requirements for the degreasing operation are applicable:
    - (1) Control air disturbances across the cleaning machine opening(s) by placing cover(s) to the solvent cleaning machine during the idling mode and the downtime mode unless either the solvent has been removed from the machine or maintenance or

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monitoring is being performed that requires the cover(s) to not be in place.

- (2) The parts baskets or the parts being cleaned in the cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.
- (3) Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air.
- (4) Parts shall be oriented so that the solvents drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the commissioner.
- (5) Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.
- (6) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
- (7) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
- (8) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
- (9) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer.
- (10) Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of 40 CFR 63, if requested during an inspection by the commissioner.
- (11) Waste solvents, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.
- (12) Sponges, fabric, wood, and paper products shall not be cleaned.
- (c) Pursuant to 40 CFR 63.463(e), the Permittee shall comply with the following requirements:
  - (1) The Permittee shall conduct monitoring of each control device used to comply with 40 CFR 63.463 as provided in 40 CFR 63.466, monitoring procedures.
  - (2) Determine during each monitoring period if the control device used to comply with the above standards meets the following requirements:
    - (A) The Permittee shall ensure that the chilled air blanket temperature (in EF), measured at the center of the air blanket of the freeboard refrigeration

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device is no greater than 30% of the solvent's boiling point.

- (B) When using a working-mode cover the Permittee shall:
  - (i) ensure that the cover opens only for part entrance and removal and completely covers the cleaning machine openings when closed.
  - (ii) ensure that the working-mode cover is maintained free of cracks, holes, and other defects.
- (3) An exceedance has occurred if:
  - (A) the requirements of paragraph (c)(2)(B)(i) of this condition is not met; and
  - (B) the requirements of paragraphs (c)(2)(A) and (c)(2)(B)(ii) of this condition have not been met and are not corrected within fifteen (15) days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameters must be remeasured immediately upon adjustment or repair and demonstrated to be within the required limits.
- (4) the Permittee shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR 63.468.

# D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-3]

Pursuant to 326 IAC 8-3-3 (Open Top Vapor Degreasing Operations) for open top vapor degreasing operations constructed after January 1, 1980, the Permittee shall:

- (a) equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (b) keep the cover closed at all times except when processing workloads through the degreaser;
- (c) minimize solvent carry-out by:
  - (1) Racking parts to allow complete drainage;
  - (2) Moving parts in and out of the degreaser at less than eleven (11) feet per minute;
  - (3) Degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (4) Tipping out any pools of solvent on the cleaned parts before removal;
  - (5) Allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (d) not decrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (e) not occupy more than half of the degreaser's open top area with the workload;
- (f) not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;

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- (g) never spray above the vapor level;
- (h) repair solvent leaks immediately, or shut down the degreaser;
- (i) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (j) not use workplace fans near the degreaser opening;
- (k) not allow visually detectable water in the solvent exiting the water separator; and
- (I) provide a permanent, conspicuous label summarizing the operating requirements.

# Compliance Determination Requirements [326 IAC 2-1.1-11]

# D.3.4 Testing Requirements [326 IAC 2-1.1-11] [40 CFR 63.465] [326 IAC 20-6-1]

The Permittee is not required to test this facility by this permit or by 40 CFR Part 63; 40 CFR 63.465 Test Methods. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance.

# Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

# D.3.5 Monitoring Procedures [326 IAC 2-7-6(1)] [326 IAC 20-6-1] [40 CFR 63.466]

That pursuant to 40 CFR 63.466 the Permittee shall comply with the following monitoring procedures:

- (a) The Permittee shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in paragraph below:
  - The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket of the freeboard refrigeration device, during the idling mode.
- (b) The Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in paragraph below:
  - The Permittee shall conduct a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.
- (c) The Permittee shall monitor the hoist speed as described below:
  - (1) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes.
  - (2) The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.
  - (3) If the exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to the monthly until another year of compliance without an exceedance is demonstrated.

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McDowell Enterprises, Inc. Elkhart, Indiana

Permit Reviewer: CAP/MES

(4) If the Permittee can demonstrate to the commissioner's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

# Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

# D.3.6 Record Keeping Requirements

- (a) The Permittee shall maintain, in written or electronic form, records of the following information specified below, for the life time of the machine,
  - (1) Owners's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.
  - (2) The date of installation of the solvent cleaning machine and all of its control devices. If the exact date of the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
  - (3) Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine.
- (b) The Permittee shall maintain, in written or electronic form, records of the following information specified below for a period of five (5) years:
  - (1) The results of control device monitoring required under 40 CFR 63.466.
  - (2) Information on the actions taken to comply with 40 CFR 63.463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
  - (3) Estimates of annual solvent consumption for each solvent cleaning machine.

# D.3.7 Reporting Requirements [326 IAC 20-6-1]

A summary of the information to document compliance with Condition D.3.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, and to the following address:

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

- (a) Submit an initial notification report immediately. The report shall include the following information:
  - (1) The name and address of the Permittee.
  - (2) The address of the solvent cleaning machine.
  - (3) A brief description of each solvent cleaning machine including machine type, solvent/air interface area, and existing controls.

McDowell Enterprises, Inc.

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Elkhart, Indiana

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- (4) The date of installation for the solvent cleaning machine.
- (5) The anticipated compliance approach for the solvent cleaning machine.
- (6) An estimated annual halogenated HAP solvent consumption for the solvent cleaning machine.
- (b) Submit an initial statement of compliance for the solvent cleaning machine immediately. This statement shall include:
  - (1) The name and the address of the Permittee.
  - (2) The address (i.e., physical location) of the solvent cleaning machine(s).
  - (3) A list of the control equipment used to achieve compliance for solvent cleaning machine.
  - (4) For each piece of control equipment required to be monitored, a list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date.
- (c) The Permittee shall submit an annual report by February 1 of each year following the one for which the reporting is being made. This report shall include the requirements as follows:
  - (1) A signed statement from the facility owner or his designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 40 CFR 63.463(d)(10)."
  - (2) An estimate of solvent consumption for each solvent cleaning machine during the reporting period.
- (d) The Permittee shall submit an exceedance report to the commissioner semiannually except when, the commissioner determines, on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency under paragraph 40 CFR63.468 (i) of this section is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calender half or quarter, as appropriate. The exceedance report shall include the applicable information as given below:
  - (1) Information on the actions taken to comply with 40 CFR63. 463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
  - (2) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.
  - (3) If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

McDowell Enterprises, Inc.

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(e) Pursuant to 40 CFR 63.463 (i), the Permittee who is required to submit an exceedance report on a quarterly (or more frequent) basis may reduce the frequency of reporting to semiannual if the following conditions are met:

- (1) The source has demonstrated a full year of compliance without an exceedance.
- (2) The Permittee continues to comply with all relevant record keeping and monitoring requirements specified in Subpart A (General Provisions) and in 40 CFR 63, Subpart T.
- (3) The commissioner does not object to a reduced frequency of reporting for the affected source as provided in paragraphs (e)(3)(iii) of Subpart A (General Provisions) of 40 CFR 63.
- (f) The Permittee of a solvent cleaning machine requesting an equivalency determination, as described in 40 CFR 63.469 shall submit an equivalency request report to the commissioner and receive an approval prior to startup.

McDowell Enterprises, Inc. Elkhart, Indiana Permit Reviewer: CAP/MES

#### SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

#### **Emissions Unit Description:**

- (I) Three (3) natural gas fired heaters, identified as A16320GCB, A03818GCB and A03833GCB, capacity: 0.075 million British thermal units per hour, each.
- (m) Eleven (11) polishing and buffing units, equipped with a dust collector exhausting inside the building.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

There are no Emission Limitations and Standards applicable to these emission units.

#### Compliance Determination Requirement [326 IAC 2-1.1-11]

There are no Compliance Determination Requirements applicable to these emission units.

#### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

There are no Compliance Monitoring Requirements applicable to these emission units.

#### Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

There are no Record Keeping and Reporting Requirements applicable to these emission units.

McDowell Enterprises, Inc. Elkhart, Indiana

Permit Reviewer: CAP/MES

Source Name:

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## PART 70 OPERATING PERMIT CHROMIUM ELECTROPLATING AND ANODIZING NESHAP ONGOING COMPLIANCE STATUS REPORT

(Complete this form for each affected tank)

McDowell Enterprises, Inc.

This form is to be used to report compliance for the Chromium Electroplating and Anodizing NESHAP only. The frequency for completing be altered by IDEM, OAQ, Compliance Branch.  Companies classified as a major source:  Companies classified as an area source:  Submit this report no later than 30 days after the end of the reporting period.  Complete this report no later than 30 days after the end of the reporting period, and retain on site unless otherwise notified.  This form consists of 2 pages  Page 1 of 2  BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:  TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:  MAJOR AND AREA SOURCES: CHECK ONE  9 NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.  9 THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).  AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:  IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.  JAN APR JUL OCT  FEB MAY AUG NOV  HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY:  LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.  JAN APR JUL OCT  FEB MAY AUG NOV	Source Address: Mailing Address: MSOP No.: Tank ID #: Type of process: Monitoring Parameter: Parameter Value: Limits:	[e.g., 5.3 ±1 inches of water	rt, Indiana 46515	_ (indicate mg/dscm or
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McDowell Enterprises, Inc. Elkhart, Indiana

Permit Reviewer: CAP/MES

ATTACH A SEPARATE PAGE IF NEEDED

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## CHROMIUM ELECTROPLATING AND ANODIZING NESHAP ONGOING COMPLIANCE STATUS REPORT

IF THE C	DPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, PROVIDE AN IATION OF THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVENT:
DESCRI REPORT	BE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAST STATUS T:
ADDITIC	NAL COMMENTS:
ALL SO	URCES: CHECK ONE
•	
9	I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THIS REPORT IS ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.
9	THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.
	Submitted by:
	Title/Position:
	Signature:
	Date:
	Phone:

Attach a signed certification to complete this report.

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McDowell Enterprises, Inc. Elkhart, Indiana Permit Reviewer: CAP/MES

#### **MALFUNCTION REPORT**

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6

and to qualify for the exemption under 326 IAC 1-6-4.
THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER?, 25 TONS/YEAR SULFUR DIOXIDE?, 25 TONS/YEAR NITROGEN OXIDES?, 25 TONS/YEAR VOC?, 25 TONS/YEAR HYDROGEN SULFIDE?, 25 TONS/YEAR TOTAL REDUCED SULFUR ?, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS?, 25 TONS/YEAR FLUORIDES?, 100 TONS/YEAR CARBON MONOXIDE?, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT?, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT?, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD?, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2)? EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION
THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC OR, PERMIT CONDITION # AND/OR PERMIT LIMIT OF
THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y
THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT? Y
COMPANY: PHONE NO. :  LOCATION: (CITY AND COUNTY)  PERMIT NO. AFS PLANT ID: INSP:
PERMIT NO AFS PLANT ID: AFS POINT ID: INSP:
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:
DATE/TIME MALFUNCTION STARTED:/ 20 AM / PM
ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:
DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE// 20 AM / PM
TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:
ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION:
MEASURES TAKEN TO MINIMIZE EMISSIONS:
REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:
CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:  CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:
INTERIM CONTROL MEASURES: (IF APPLICABLE)
MALFUNCTION REPORTED BY: TITLE: TITLE:
MALFUNCTION RECORDED BY: DATE: TIME:

McDowell Enterprises, Inc.

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## Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

#### 326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

#### 326 IAC 1-2-39 "Malfunction" definition

If this item is checked on the front, please explain rationale:

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\* <u>Essential services</u> are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

McDowell Enterprises, Inc.
Elkhart, Indiana
Permit Reviewer: CAP/MES

Company Name:

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## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE BRANCH

### MINOR SOURCE OPERATING PERMIT ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

McDowell Enterprises, Inc.

Address:	2010 Superior Street	
City:	Elkhart	
Phone #:	(574) 293-1042	
MSOP #:	039-11719-00413	
hereby certify that N	McDowell Enterprises, Inc. is	<ul><li>9 still in operation.</li><li>9 no longer in operation.</li></ul>
hereby certify that I	McDowell Enterprises, Inc. is	<ul> <li>9 in compliance with the requirements of MSOP 039-11719-00413.</li> <li>9 not in compliance with the requirements of MSOF 039-11719-00413.</li> </ul>
Authorized Individ	dual (typed):	
Title:		
Signature:		
Date:		
		ch the source is not in compliance, provide a narrative ompliance and the date compliance was, or will be
Noncompliance:		

## Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Minor Source Operating Permit

Source Name: McDowell Enterprises, Inc.

Source Location: 2010 Superior Street, Elkhart, Indiana 46515

County: Elkhart SIC Code: 3471

Operation Permit No.: MSOP 039-11719-00413
Permit Reviewer: CarrieAnn Paukowits

On November 26, 2002, the Office of Air Quality (OAQ) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that McDowell Enterprises, Inc. had applied for a operating permit to operate a chromium electroplating source with composite mesh pad systems for control. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following change to the construction permit: The permit language is changed to read as follows (deleted language appears as strikeouts, new language is **bolded**):

The date of the performance test for Tanks 1NW, 1NE, 2NE, 2N and 6E is corrected in Condition D.2.7. as follows:

- D.2.7 Performance Testing [326 IAC 2-1.1-11] [40 CFR 63.343(b)(2)] [40 CFR 63.7] [40 CFR 63.344] [326 IAC 20-8-1]
  - (a) A performance test demonstrating initial compliance for Tanks 1NW, 1NE, 2NE, 2N and 6E was performed on **July 15** September 11, 1997.

During the initial performance test, it was determined that the average pressure drop across the composite mesh pad system was 5.2 inches of water and the average outlet chromium concentration is 0.00110 mg/dscm.

- (b) The Permittee is not required to further test Tanks 1NW, 1NE, 2NE, 2N and 6E by this permit. However, the IDEM may require testing when necessary to determine if the Tanks 1NW, 1NE, 2NE, 2N and 6E are in compliance. If testing is required by the IDEM, compliance with the limit specified in Condition D.2.3 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C Performance Testing.
- (c) Any change, modification, or reconstruction of Tanks 1NW, 1NE, 2NE, 2N and 6E, the composite mesh pad system or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

## Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit

#### **Source Background and Description**

Source Name: McDowell Enterprises, Inc.

Source Location: 2010 Superior Street, Elkhart, Indiana 46515

County: Elkhart SIC Code: 3471

Operation Permit No.: MSOP 039-11719-00413
Permit Reviewer: CarrieAnn Paukowits

The Office of Air Quality (OAQ) has reviewed an application from McDowell Enterprises, Inc. relating to the operation of a chromium electroplating source.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) decorative chrome plating tank, identified as Tank 15N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (b) One (1) hard chrome plating tank, identified as Tank 27N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 750 amps and a maximum cumulative rectifier capacity of 4,410,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (c) One (1) hard chrome plating tank, identified as Tank 3WA, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (d) One (1) hard chrome plating tank, identified as Tank 3WB, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 3,000 amps and a maximum cumulative rectifier capacity of 17,640,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.
- (e) One (1) hard chrome plating tank, identified as Tank 2WB, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the south chromium stack.

McDowell Enterprises, Inc.

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(f) One (1) hard chrome plating tank, identified as Tank 1NW, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 6,000 amps and a maximum cumulative rectifier capacity of 35,280,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.

- (g) One (1) hard chrome plating tank, identified as Tank 1NE, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (h) One (1) hard chrome plating tank, identified as Tank 2NE, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 8,000 amps and a maximum cumulative rectifier capacity of 47,040,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (i) One (1) hard chrome plating tank, identified as Tank 2N, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 4,000 amps and a maximum cumulative rectifier capacity of 23,520,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (j) One (1) hard chrome plating tank, identified as Tank 6E, constructed prior to December 16, 1993, using a hexavalent chromium bath and having a rectifier capacity of 2,000 amps and a maximum cumulative rectifier capacity of 11,760,000 amp-hours, equipped with a composite mesh pad system as control, and exhausting to the north chromium stack.
- (k) One (1) open top, batch vapor degreaser, constructed after 1980, capacity: 45.9 pounds of trichloroethylene per day.
- (I) Three (3) natural gas fired heaters, identified as A16320GCB, A03818GCB and A03833GCB, capacity: 0.075 million British thermal units per hour, each.
- (m) Eleven (11) polishing and buffing units, equipped with a dust collector exhausting inside the building.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **New Emission Units and Pollution Control Equipment**

There are no new facilities proposed at this source during this review process.

#### **Existing Approvals**

The source has been operating under the following previous approvals including:

- (a) Operation Permit 20-05-81-0415, issued on August 4, 1977, and expired on May 1, 1981;
- (b) Registered Construction and Operation Status, Old Permit No. 20-05-81-0415, issued on June 4, 1981;
- (c) Registered Construction and Operation Status CP 039-6633-00413, issued on October 24, 1996; and

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(d) Amendment 039-7060, issued on November 13, 1996.

All terms and conditions from previous approvals issued pursuant to the permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous approvals are superseded by this permit.

The following terms and conditions from previous approvals have been determined to be no longer applicable, and, therefore, are not incorporated into this permit:

(a) Registered Construction and Operation Status CP 039-6633-00413, issued on October 24, 1996:

Pursuant to 326 IAC 8-3-4 (Conveyorized Degreaser Operations), the owner or operator shall:

- (1) minimize carryout emissions by:
  - (A) racking parts for best drainage;
  - (B) maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);
- (2) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (3) repair solvent leaks immediately, or shut down the degreaser;
- (4) not use workplace fans near the degreaser opening;
- (5) not allow water in solvent exiting the water separator; and
- (6) provide a permanent, conspicuous label summarizing the operating requirements.

Reason not incorporated: The degreaser was incorrectly identified as a conveyorized degreaser. The degreaser is an open top, batch, vapor degreaser. Therefore, the degreaser is subject to the requirements of 326 IAC 8-3-3, and not 326 IAC 8-3-4.

(b) Registered Construction and Operation Status CP 039-6633-00413, issued on October 24, 1996:

Any change or modification which may increase the potential volatile organic compound emissions to 25 tons per year or more from the equipment covered in this registration must be approved by the Office of Air Quality (OAQ) before such change may occur.

Reason not incorporated: All changes and modifications must be reviewed under 326 IAC 2-6.1-6, Permit revisions.

(c) Registered Construction and Operation Status, Old Permit No. 20-05-81-0415, issued on June 4, 1981:

Emissions shall be at a level acceptable to 325 IAC 6-3.

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Reason not incorporated: This rule has been changed to 326 IAC 6-3. All of the emission units currently at this source are exempt from the requirements of 326 IAC 6-3, as explained in the "State Rule Applicability - Individual Facilities" section of this document.

(d) All construction conditions from all previous permits.

Reason not incorporated: All facilities previously permitted have already been constructed. Therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

#### **Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S9	Degreaser Blower	37.5	3.17	N/A	Ambient
North Chrome Stack	Chromium Electroplating	8.0	2.0	N/A	Ambient
South Chrome Stack	Chromium Electroplating	8.0	2.17	N/A	Ambient

#### **Enforcement Issue**

There are no enforcement actions pending.

#### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 28, 1999, with additional information received on November 27, 2001, and August 29 and November 7, 2002.

#### **Emission Calculations**

Chromium emissions (Single HAP) from the biggest chromium electroplating source in Indiana are less than ten (10) tons per year and McDowell Enterprises, Inc. is a much smaller source in comparison. Therefore, no emission calculations were necessary for the chromium electroplating because the chromium emissions from this source will be less than ten (10) tons per year.

See pages 1 through 4 of 4 of Appendix A of this document for detailed emissions calculations for all other facilities at this source.

#### **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air

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pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.002
PM <sub>10</sub>	0.007
SO <sub>2</sub>	0.001
VOC	8.39
CO	0.083
NO <sub>X</sub>	0.099

HAPs	Potential To Emit (tons/year)	
Benzene	2.07E-6	
Dichlorobenzene	1.18E-6	
Formaldehyde	7.39E-5	
Hexane	1.77E-3	
Toluene	3.35E-6	
Lead	4.93E-7	
Cadmium	1.08E-6	
Chromium	Less than 10	
Manganese	3.74E-7	
Nickel	2.07E-6	
Trichlorethylene	8.38	
TOTAL	Less than 18.4	

(a) The existing source is subject to 326 IAC 20-8 but not subject to 326 IAC 2-5.5-1(b)(2), Registration, because the source does not consist only of decorative chromium electroplating tanks. The source is a hard chromium electroplating source and the source emits less than major source levels of each criteria pollutant and of HAPs. Therefore, the source is subject to the provisions of 326 IAC 2-6.1-3(a).

#### (b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

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#### **Actual Emissions**

No previous emission data has been received from the source.

#### **Limited Potential to Emit**

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	РМ	PM <sub>10</sub>	SO <sub>2</sub>	voc	со	NO <sub>x</sub>	HAPs
Chromium Electroplating	-	-	-	-	-	-	< 10
Degreasing	-	-	-	8.38	-	-	8.38
Heaters	0.002	0.007	0.001	0.005	0.083	0.099	0.002
Polishing and Buffing	0.0002	0.0002	-	-	-	-	-
Total Emissions	0.002	0.007	0.001	8.39	0.083	0.099	< 10 individual <18.4 total

#### **County Attainment Status**

The source is located in Elkhart County.

Pollutant	Status	
PM <sub>10</sub>	attainment	
SO <sub>2</sub>	attainment	
NO <sub>2</sub>	attainment	
Ozone	maintenance attainment	
СО	attainment	
Lead	attainment	

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

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#### **Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This existing source, based on the emissions summarized in this permit, MSOP 039-11719-00413, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) any combination of HAPs is less than twenty-five (25) tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

#### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The provisions of 40 CFR 63 Subpart A General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 63 Subpart N.

The nine (9) hard chrome electroplating tanks, identified as Tanks 27N, 3WA, 3WB, 2WB, 1NW, 1NE, 2NE, 2N and 6E, and the one (1) decorative chrome electroplating tank, identified as Tank 15N, are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart N, and 326 IAC 20-8-1, because they are hard or decorative chromium electroplating tanks. Pursuant to 40 CFR 63, Subpart N, and 326 IAC 20-8-1, the tanks are subject to the following requirements:

(1) Emission limitation:

The Permittee shall comply with these requirements on and after the compliance date for the tanks.

- (A) The hard chromium electroplating tanks, identified as 1NW, 1NE, 2NE, 2N and 6E above, are considered part of a large, existing, hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the hard chromium electroplating tanks by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed three-hundredths milligrams of total chromium per dry standard cubic meter of ventilation air (0.015 mg/dscm) [equivalent to six and six-tenths times ten raised to the power of negative six grains of total chromium per dry standard cubic foot of ventilation air (6.6x10-6 gr/dscf)].
- (B) The hard chromium electroplating tanks, identified as tanks 27N, 3WA, 3WB, 2WB, and the one (1) decorative chrome electroplating tank, identified as Tank 15N above, are all controlled by a single composite mesh pad system. Pursuant to 40 CFR 63.342(b)(2)(iii), the emission limitation calculated according to 40 CFR 63.344(e)(4) is applicable if affected sources are performing different types of operations. Therefore, during operation of any

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five (5) affected tanks, tanks 15N, 27N, 3WA, 3WB and/or 2WB, the Permittee shall control chromium emissions discharged to the atmosphere from the tanks by not allowing the total chromium in the exhaust gas stream discharged to the atmosphere to exceed 257.4 milligrams of total chromium per hour (mg/hr). This limit was calculated based upon the following equations from 40 CFR 63.344(e)(4):

Equation 3:  $VR_{tot} \times IDA_{i,a}/EIA_{total} = VR_{inlet,a}$ 

Equation 4: VR<sub>hc</sub> × Emission Limit<sub>hc</sub> × 60 minutes/hour = AMR<sub>hc</sub>

Equation 6:  $VR_{dc} \times Emission Limit_{dc} \times 60 minutes/hour = AMR_{dc}$ 

Equation 8:  $AMR_{hc} + AMR_{dc} = AMR_{sys}$ 

Where  $VR_{tot}$  is the average total ventilation rate in dry standard cubic meters per minute (dscm/min) for the three test runs as determined at the outlet by means of the Method 306 testing;  $IDA_{i,a}$  is the total inlet area for all ducts associated each type of affected source;  $IA_{total}$  is the sum of all inlet duct areas from both affected and nonaffected sources;  $VR_{inlet,a}$  is the total ventilation rate from all inlet ducts associated with each type of affected source;  $VR_{hc}$  is the total ventilation rate for hard chrome electroplating tanks;  $VR_{dc}$  is the total ventilation rate for decorative chrome electroplating tanks;  $VR_{dc}$  is the allowable mass emission rate in mg/hr for all of the hard chrome electroplating;  $VR_{dc}$  is the allowable mass emission rate in milligrams per hour (mg/hr); and the Emission Limit is the emission limits from 40 CFR 63.342, which equal 0.015 mg/dscm for large, existing hard chrome electroplating and 0.01 mg/dscm for decorative chrome electroplating.

#### (2) Monitoring Requirements:

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- (A) Pursuant to 40 CFR 63.343(c)(1)(ii), when using a composite mesh-pad system to comply with the limit specified above, the Permittee shall monitor and record the pressure drop across the composite mesh-pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ±1 inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.
- (B) Tank operation or operating time is defined as that time when a part is in the tank and the rectifier is turned on. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts may be considered operating time.
- (3) The chromium electroplating operations shall be subject to the record keeping and reporting requirements indicated in the chromium electroplating NESHAP and specified in the permit.

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(b) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the one (1) open top, batch vapor degreaser except when otherwise specified in 40 CFR Part 63, Subpart T.

The one (1) open top, batch vapor degreaser is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20-6-1 and 40 CFR 63.460, Subpart T, because it is a batch vapor cleaning machine using a halogenated HAP solvent in total concentration greater than five percent (5%) as a cleaning agent.

- (1) Pursuant to 40 CFR 63.463(a) and (b), the Permittee shall conform to the following design requirements:
  - (A) The cleaning machine shall be designed or operated such that, it has an idling and downtime mode cover, as described in 40 CFR 63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects.
  - (B) The cleaning machine shall be employed with a control combination of working-mode cover and freeboard refrigeration device.
  - (C) Cleaning machine shall have a freeboard ratio of 0.75 or greater.
  - (D) Cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minutes (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
  - (E) Cleaning machine shall be equipped with a device that shuts off sump heat if the sump liquid solvent level drops to the sump heater coils.
  - (F) Cleaning machine shall have a primary condenser.
  - (G) Cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
- (2) Pursuant to 40 CFR 63.463(d), the following work and operational practice requirements for the degreasing operation are applicable:
  - (A) Control air disturbances across the cleaning machine opening(s) by placing cover(s) to the solvent cleaning machine during the idling mode and the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place.
  - (B) The parts baskets or the parts being cleaned in the cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.
  - (C) Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the

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ambient air.

- (D) Parts shall be oriented so that the solvents drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the commissioner.
- (E) Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.
- (F) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
- (G) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
- (H) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
- (I) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer.
- (J) Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of 40 CFR 63, if requested during an inspection by the commissioner.
- (K) Waste solvents, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.
- (L) Sponges, fabric, wood, and paper products shall not be cleaned.
- (3) Pursuant to 40 CFR 63.463(e), the Permittee shall comply with the following requirements:
  - (A) The Permittee shall conduct monitoring of each control device used to comply with 40 CFR 63.463 as provided in 40 CFR 63.466, monitoring procedures.
  - (B) Determine during each monitoring period if the control device used to comply with the above standards meets the following requirements:
    - (i) The Permittee shall ensure that the chilled air blanket temperature (in EF), measured at the center of the air blanket of the freeboard refrigeration device is no greater than 30% of the solvent's boiling

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point.

- (ii) When using a working-mode cover the Permittee shall:
  - (a) ensure that the cover opens only for part entrance and removal and completely covers the cleaning machine openings when closed.
  - (b) ensure that the working-mode cover is maintained free of cracks, holes, and other defects.
- (C) An exceedance has occurred if:
  - (i) the requirements of paragraph (B)(ii)(a), above, is not met; and
  - (ii) the requirements of paragraphs (B)(i)(A) and (B)(ii)(b), above, have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameters must be re-measured immediately upon adjustment or repair and demonstrated to be within the required limits.
- (D) the Permittee shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR 63.468.
- (4) Pursuant to 40 CFR 63.466 the Permittee shall comply with the following monitoring procedures:
  - (A) The Permittee shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in paragraph below:
    - The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket of the freeboard refrigeration device, during the idling mode.
  - (B) The Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in paragraph below:
    - The Permittee shall conduct a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.
  - (C) The Permittee shall monitor the hoist speed as described below:
    - (i) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes.
    - (ii) The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.
    - (iii) If the exceedance of the hoist speed occurs during quarterly moni-

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toring, the monitoring frequency returns to the monthly until another year of compliance without an exceedance is demonstrated.

- (iv) If the Permittee can demonstrate to the commissioner's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.
- (5) The degreaser shall be subject to the record keeping and reporting requirements indicated in the halogenated solvent cleaning NESHAP and specified in the permit.

#### State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

Construction of this source commenced prior to August 7, 1977; therefore, it was not subject to the PSD requirements of 326 IAC 2-2. The source has since been modified. The unrestricted potential to emit each criteria pollutant from this source is less than 250 tons per year and this source is not in one of the twenty-eight (28) listed source categories. Therefore, the requirements of 326 IAC 2-2 are still not applicable.

#### 326 IAC 2-4.1-1 (New Source Toxics Control)

The potential to emit each individual hazardous air pollutant (HAP) is less than ten (10) tons per year and the potential to emit any combination of HAPs is less than twenty-five (25) tons per year from the total of all facilities at this source. Therefore, this source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments, and the requirements of 326 IAC 2-4.1-1, New Source Toxics Control, are not applicable.

#### 326 IAC 2-6 (Emission Reporting)

This source is located in Elkhart County and the potential to emit VOC and  $NO_X$  is less than ten (10) tons per year and the potential to emit  $SO_2$ , CO and  $PM_{10}$  is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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#### State Rule Applicability - Individual Facilities

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-1(b)(14), effective June 12, 2002, the buffing and polishing operations are exempt from the requirements of 326 IAC 6-3, Particulate Emission Limitations for Manufacturing Processes, because the potential PM emissions from the buffing and polishing are less than 0.551 pound per hour.
- (b) Pursuant to 326 IAC 6-3-1(c)(6), this rule is not applicable to the chrome electroplating operations because a particulate limit for the electroplating is established in 326 IAC 20-8-1.

326 IAC 8-3-3 (Organic Solvent Degreasing Operations: Open Top Vapor Degreaser Operation)

The one (1) open top, batch vapor degreaser, constructed after 1980 in Elkhart County, is subject to the requirements of 326 IAC 8-3-3. Pursuant to this rule, the owner or operator of the open top vapor degreaser shall:

- (a) equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (b) keep the cover closed at all times except when processing work loads through the degreaser;
- (c) minimize solvent carry-out by:
  - (1) racking parts to allow complete drainage;
  - (2) moving parts in and out of the degreaser at less than 3.3 meters per minute (eleven (11) feet per minute);
  - (3) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (4) tipping out any pools of solvent on the cleaned parts before removal; and
  - (5) allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (d) not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (e) not occupy more than half of the degreaser's open top area with the workload;
- (f) not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (g) never spray above the vapor level;
- (h) repair solvent leaks immediately, or shut down the degreaser;
- (i) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;

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- (j) not use workplace fans near the degreaser opening;
- (k) not allow visually detectable water in the solvent exiting the water separator; and
- (I) provide a permanent, conspicuous label summarizing the operating requirements.

328 IAC 8-3-6 (Organic Solvent Degreasing Operations: Open Top Vapor Degreaser Operation and Control Requirements)

The one (1) open top, batch vapor degreaser has an air to solvent interface area of 10 square feet, which is less than 10.8 square feet. Therefore, pursuant to 326 IAC 8-3-1(b), this source is not subject to the requirements of 326 IAC 8-3-6.

#### Conclusion

The operation of this chromium electroplating source shall be subject to the conditions of the attached proposed Minor Source Operating Permit 039-11719-00413.

## Appendix A: Emission Calculations Degreasing Operations VOC and HAP Emission Calculations

Company Name: McDowell Enterprises, Inc.

Address City IN Zip: 2010 Superior Street, Elkhart, Indiana 46515

MSOP: 039-11719 Plt ID: 039-00413

Reviewer: CarrieAnn Paukowits
Date: December 28, 1999

Material	Maximum	Weight %	Weight %	VOC	Trichloroethylene	Total HAPs
	Consumption	VOC	Trichloroethylene	Emissions	Emissions	Emissions
	(lbs/yr)			(tons/yr)	(tons/yr)	(tons/yr)
Degreasing						
Trichloroethylene	16754	100%	100%	8.38	8.38	8.38

**Total State Potential Emissions** 

TOTALS: (tons/yr): 8.38 8.38 8.38
-----------------------------------

#### **METHODOLOGY**

VOC/HAPs emission rate (tons/yr) = Material Usage (lbs/hr) \* Weight % VOC/HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

## Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100 Natural Gas Boiler

Company Name: McDowell Enterprises, Inc.

Address City IN Zip: 2010 Superior Street, Elkhart, Indiana 46515

MSOP: 039-11719 PIt ID: 039-00413

Reviewer: CarrieAnn Paukowits
Date: December 28, 1999

Heat Input Capacity Potential Throughput

MMBtu/hr MMCF/yr

0.225

#### Pollutant

1 ondan								
	PM*	PM10*	SO2	NOx	VOC	CO		
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0		
				**see below				
Potential Emission in tons/yr	0.002	0.007	0.001	0.099	0.005	0.083		

<sup>\*</sup>PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 3 for HAPs emissions calculations.

<sup>\*\*</sup>Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

#### Page 3 of 4 TSD App A

# Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100 Natural Gas Boiler HAPs Emissions

Company Name: McDowell Enterprises, Inc.

Address City IN Zip: 2010 Superior Street, Elkhart, Indiana 46515

MSOP: 039-11719 Plt ID: 039-00413

Reviewer: CarrieAnn Paukowits
Date: December 28, 1999

#### HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03		
Potential Emission in tons/yr	2.07E-06	1.18E-06	7.39E-05	1.77E-03	3.35E-06		

#### HAPs - Metals

Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel	Total
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	HAPs
Potential Emission in tons/yr	4.93E-07	1.08E-06	1.38E-06	3.74E-07	2.07E-06	0.002

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

## Appendix A: Emission Calculations Buffing and Polishing

Company Name: McDowell Enterprises, Inc.

Address City IN Zip: 2010 Superior Street, Elkhart, Indiana 46515

MSOP: 039-11719 PIt ID: 039-00413

Reviewer: CarrieAnn Paukowits
Date: December 28, 1999

Unit ID	Control	Grain Loading per Actual	Gas or Air	Emission Rate	Emission Rate	Emission Rate	Emission Rate
	Efficiency	Cubic foot of Outlet Air	Flow Rate	before Controls	before Controls	after Controls	after Controls
	(%)	(grains/cub. ft.)	(acfm.)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
		-					
Buffing and polishing	99.99%	7.40E-08	5.4	3.43E-05	1.50E-04	3.43E-09	1.50E-08

#### Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains) Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)